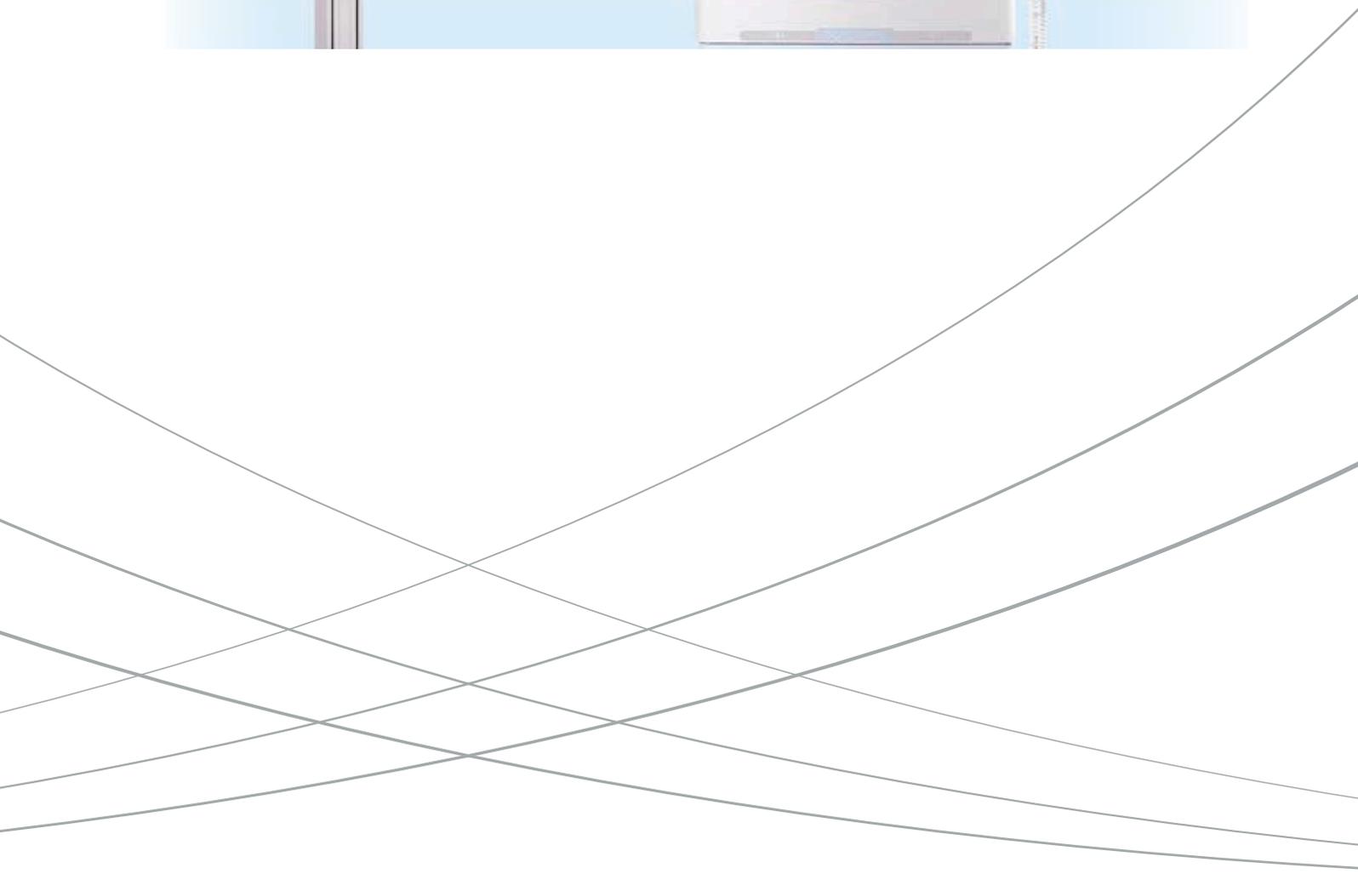


# RADspeed Pro *AeroDR*

DIGITAL RADIOGRAPHIC SYSTEM



# Sophisticated Functions Make System Operation Even Easier

## Revolutionary Auto-Positioning Allows the Operator to Focus On Patient Care option

The auto-positioning feature is interlocked with the APRs. This function moves the ceiling-mounted X-ray tube support to any desired position at the press of a single button and can automatically set the X-ray tube angle. Effortless tube positioning allows the operator to focus on patient care. Naturally, manual operation is also possible to make fine positioning corrections extremely simple.



Pressing a single button on the remote control smoothly moves the ceiling mounted X-ray tube support to pre-registered positions. Movement stops immediately after the remote control button is released. Up to two remote control units can be used.



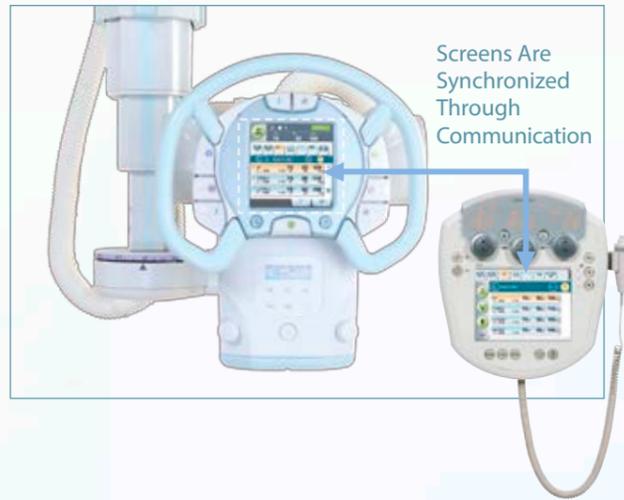
## Bucky Unit Automatically Follows Irradiation option

Easily synchronize the longitudinal travel of the table's Bucky unit with the X-ray tube support position. In addition, The focal point of the X-ray tube unit moves up and down in conjunction with the vertical positioning of the X-ray Bucky stand and X-ray Bucky table.



## APRs Synchronized with the X-Ray High Voltage Generator

Radiography parameters and techniques can be changed beside the patient as well as on the wall-mounted console in the control room. The operator can prepare for radiography without leaving the patient. This sophisticated synchronization of the X-ray tube support and X-ray high voltage generator effectively exploits the convenience of dual consoles.



## Ceiling-Mounted X-Ray Tube Support for Versatile Positioning

X-ray tube support vertical range of 1,600 mm ensures sufficient SID when examining supine patients and low focal point radiography of standing patients. This support also rotates on the vertical and horizontal axis in addition to fixed positioning at any desired angle, enabling fast positioning at complex angles for orthopedic applications.



## Easy-to-Use wireless FPD

AeroDR systems are really easy to use FPD. The weight of AeroDR 2 1417S is as light as 2.5kg, which is close to that of CR cassette. They have strongness against heavy load, water and bacteria. Short charging time and preview image display provide high throughput.

### AeroDR system

#### AeroDR 1417HQ

- 14 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Light weight 2.9 kg(6.4 lb)

#### AeroDR 1417S

- 14 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Light weight 2.8 kg(6.2 lb)

#### AeroDR 1717HQ

- 17 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Light weight 3.6 kg(7.9 lb)

#### AeroDR 1012HQ

- 14 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Light weight 1.7 kg(3.8 lb)



### AeroDR 2(Premium) System

#### AeroDR 2 1417HQ(XE)\*

- **Top of the line in AeroDR**
- 14 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Ultra light weight 2.6 kg(5.7 lb)

#### AeroDR 2 1417S(LT)\*

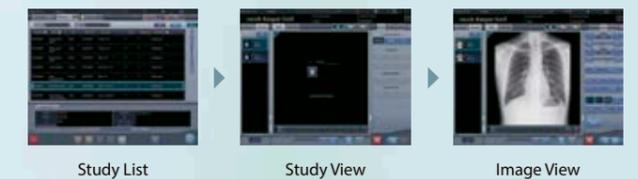
- **Top of the line in AeroDR**
- 14 x 17 inch wireless Flat Panel Detector, Scintillator CsI
- Ultra light weight 2.5 kg(5.5 lb)

\* Name of FPD may vary depending on countries.



## Quick Preview and Smart GUI Enhance Work Flow

After exposure, a preview image immediately appears on the display of the CS-7 console in less than two seconds. The CS-7 has a user-friendly graphic interface adding new and powerful proprietary functions. GUI design can be modified to customer preferences flexibly, succeeding the conventional console design.



# Next-Generation Collimator Reduces X-Ray Dose to the Patients

## Automatic Beam Hardening Filter option

When the APR is selected for the region being imaged, the collimator filter also switches.

Using the filter preset for each APR, such as the extremities or abdomen, minimizes unnecessary exposure to obtain high-quality radiographic images at the optimal X-ray dose.



## Area Dosimeter option

This dosimeter measures dose information and transfers it to the X-ray high-voltage generator.

The dose information can be displayed on the DR operators console, sent to PACS in the DICOM header and included on printed images.

## Confirm X-Ray Beam Projection Field Immediately Before Exposure

When controlling radiography operations from the control room, the irradiation field lamp automatically turns on before exposure to allow confirmation of the region to be imaged.

## Auto field size selection option

The exposure field size of the collimator is automatically selected in response to the image size set on DR system.

## Cushioning Gently Protects Patients

If a patient suddenly sits up after an examination, they could potentially hit their head on the instrument.

Therefore, the bottom of the X-ray tube support and collimator edge is covered with rubber cushioning material to carefully protect patient.



## Click-Stop Collimator Rotation option

When rotating the collimator relative to the X-ray tube, the collimator can be click-stopped in 3 positions, 0 degrees and  $\pm 45$  degrees, allowing quick adjustment of collimation. (The collimator can also be quickly returned to the original (0°) position.)



# Easy-to-Operate, Fully Featured, Intelligent X-Ray High Voltage Generator

## Color LCD Touch Panel Allows Intuitive Operation

## Patient Care Concept

### Color-Coded Status Indicator

The console panel indicates the status of the X-ray generator using color perimeter display with audible sound.

The hand switch also lights up to indicate 'Ready Status'.

- This advanced feature allows the operator to concentrate on patient care:
- Infant and frail elderly patients who need constant attention
  - Split-second timing is required for patients who have difficulty holding their breath.
  - Quick positioning and image capture when required



Illumination switch

## Illumination Color and Alarm Sound When Preparation for Exposure Is Complete

The LCD screen and illumination color can change according to the Bucky table or X-ray tube settings selected. Different alarm sounds can also be specified for various events, such as when preparation for exposure is complete.



Using Bucky stand



Using Bucky table

## Advanced APR Allows 800 Different Radiography Parameter Configurations

### Examination Regions

Maximum **10** regions

### Radiography Techniques

Maximum **20** techniques

## Seven Exposure Directions

### Advanced APR (Anatomical Program)

Up to 800 Anatomical Programs can be registered on the system. Registering the conditions as programs associated with examination area and technique allows conditions to be set up smoothly.

Each technique selection has 10 anatomical regions that can be selected. Each anatomical region has 20 user-definable associated techniques.

Furthermore, up to 7 different directions can be stored in each technique key; each time one direction is taken, the exposure conditions can be automatically changed according to the next direction. This feature is particularly effective for inspections of areas requiring exposure from several different directions, such as for orthopedic surgery.



## Displays Exposure Back-Log of 512 Cases

Up to 512 cases can be archived and displayed as the exposure back-log. The radiography parameters used to obtain the results can be reset.



# Configuration

## X-Ray Tube Support

### CH-200

#### Ceiling-mounted tube support

Color LCD touch screen monitor  
 Auto positioning function (Option)  
 Auto tracking function (Option)  
 Auto size sensing collimator (Option)  
 Longitudinal travel: 2950 up to 4450 mm (selectable)  
 Lateral travel: 1400 up to 2700 mm (selectable)  
 Vertical travel: 1600 mm  
 Tube angulation around the horizontal axis: +120° to -180°  
 Vertical rotation: ±180°



### CH-200M

#### Ceiling-mounted tube support

Longitudinal travel: 2950 up to 4450 mm (selectable)  
 Lateral travel: 1400 up to 2700 mm (selectable)  
 Vertical travel: 1600 mm  
 Tube angulation around the horizontal axis: +120° to -180°  
 Vertical rotation: ±180°



### FH Series

FH-20HR: Floor-mounted tube support

FH-21HR: Floor/Wall or Floor/  
 Ceiling-mounted tube support

Longitudinal travel: 2500 mm  
 Lateral travel (telescopic arm): 250 mm  
 Vertical travel: 1550 mm  
 Tube angulation around the horizontal axis: ±180°continuous  
 Column rotation for lateral tabletop radiography: ±90°



FH-20HR

FH-21HR

## Bucky Stand

### BR-120/BR-120T/BR-120M

Vertical travel range: 1550 mm  
 Removable grid  
 Size sensing cassette tray (BR-120/BR-120T)  
 Tilting bucky unit (BR-120T)



BR-120

BR-120T

## Bucky Tables

### BK-200

#### Heavy duty Bucky table

Height range: 535 mm to 850 mm  
 Max. lifting weight: 295 kg  
 Tabletop floating range: 1150 mm (long.), 250 mm (transverse)  
 Cassette size: 8" x 10" to 14" x 17"  
 Bucky unit movement range: 400 mm  
 Removable grid



### BK-120MK

#### Height-adjustable Bucky table

Height range: 535 mm to 850 mm  
 Max. lifting weight: 200 kg  
 Tabletop floating range: 1100 mm (long.), 250 mm (transverse)  
 Cassette size: 6.5" x 8.5" to 14" x 17"  
 Bucky unit movement range: 350 mm  
 Removable grid

### BK-12HK

#### Bucky table

Tabletop floating range: 1100 mm (long.), 250 mm (transverse)  
 Tabletop height: 700 mm  
 Cassette size: 6.5" x 8.5" to 14" x 17"  
 Bucky unit movement range: 350 mm  
 Removable grid

## Wireless FPD

### AeroDR Series

Specifications	AeroDR 2 System		AeroDR System		
	1417HQ(XE)	1417S(LT)	1417HQ / S	1717HQ	1012HQ
Purpose	General Radiography				
Scintillator	CsI (Cesium Iodide)				
Weight	2.6 kg(5.7 lb)	2.5 kg(5.5 lb)	2.9 kg(HQ)(6.4 lb) 2.8 kg(S)(6.2 lb)	3.6 kg(7.9 lb)	1.7 kg(3.8 lb)
Dimensions(W x D x H)	383.7x460.2x15.9 mm 15.1x18.1x0.6 inch	383.7x460.2x15.9 mm 15.1x18.1x0.6 inch	383.7 x 460.2 x 15.9 mm 15.1x18.1x0.6 inch	459.8 x 460.2 x 15.9 mm 18.1x18.1x0.6 inch	281.8 x 333.0 x 15.9 mm 11.1x13.1x0.6 inch
Pixel Size	175 µm				
Image Field	1,994x2430 pixels			2,428x2428 pixels	1,404x1,696 pixels
WLAN Standard	IEEE 802.11a				
Charging Time Empty to Full	30 minutes	13 minutes	30 minutes with battery charger		
Operating time	8.2 hours / 300 images	4.1 hours / 150 images	5.5 hours / 200 images	5.2 hours / 189 images	4.0 hours / 146 images
Battery duration in standby status	Approx. 20 hours	Approx. 10 hours	Approx.16 hours	Approx.15 hours	Approx.7.6 hours

## Control Station

### CS-7

Specifications	CS-7
Image Processing	Automatic Gradation Processing (G Processing) Frequency Processing (F Processing) Equalization Processing (E Processing) Hybrid Processing (H Processing) Hybrid Smooth Processing (HS Processing)
DICOM Support	Basic Greyscale Print Management (SCU) Storage (SCU) Modality Worklist Management Modality Performed Procedure Step Greyscale Standard Display Function (print output)



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## Shimadzu Corporation

### Headquarters

1, Nishinokyo-Kuwabara-cho, Nakagyo-ku, Kyoto 604-8511, Japan  
<http://www.shimadzu.com>



Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2008 Quality Management Systems and ISO13485:2003 Medical Devices Quality Management Systems.

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- The appearances and specifications are subject to change for reasons of improvement without notice.
- Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.